Claim 1. A technique for analyzing an output pattern of a biological sample applied to an array to determine the presence of specific constituents within a biological sample applied to the array, wherein the output pattern comprises signals associated with noise, and signals correlating to the biological sample with the signals correlating to the biological sample having intensities both greater and less than the signals associated with noise, the method comprising the steps of:

segmenting the output pattern of the array using tessellation;

interferometrically enhancing the segmented output pattern to amplify signals associated with the biological sample, having an intensity lower than the intensity of signals associated with noise, to an intensity greater than the intensity of the signals associated with noise to generate a modified output pattern;

associating signals within the interferometrically enhanced segmented output pattern with specific constituents within the biological sample; and

determining specific constituents within the biological sample based on the signals within the interferometrically enhanced segmented output pattern associated with specific constituents within the biological sample.

Claim 2. A computer code product that determines the presence of specific constituents within an output pattern of a biological sample applied to an array of detectors, wherein the output pattern comprises signals associated with noise, and signals associated with the biological sample which have intensities both greater and less than intensities of signals associated with noise, the computer code product comprising:

computer code that segments the output pattern using tessellation;

computer code that utilizes signal processing to amplify signals within the segmented output pattern associated with the biological sample having an intensity lower than the intensity of the signals associated with noise, to an intensity greater than the intensity of the signals associated with noise to generate a modified output pattern;

computer code that determines which signals within the modified output pattern correlate with specific constituents within the biological sample; and

computer code that determines specific constituents within the biological sample based on the signals within the modified output pattern correlating to specific constituents within the biological sample.

Claim 3. The computer code product of claim 2 wherein the signal processing utilizes interferometry to amplify the signals associated with the biological sample.

Claim 4. The computer code product of claim 2 wherein the utilized interferometry is resonance interferometry.

Claim 5. The computer code product of claim 4 wherein the utilized resonance interferometry is either quantum resonance interferometry or stochastic resonance interferometry.

Claim 6. A system for determining the presence of specific constituents within an output pattern generated from a detected image of a biological sample applied to an array wherein the output pattern comprises signals associated with noise, and signals associated with the biological sample which have intensities both greater and less than intensities of signals associated with noise, comprising:

a tessellation unit for segmenting the output pattern;

a signal processing unit to amplify signals associated with the biological sample within the segmented output pattern, having an intensity lower than the intensity of signals associated with noise, to an intensity greater than the intensity of the signals associated with noise to generate a modified output pattern;

a first determination unit to determine which signals within the modified output pattern correlate with specific constituents within the biological sample; and

a second determination unit to determine specific constituents within the biological sample based on the signals within the modified output pattern correlating to specific constituents within the biological sample.

Claim 7. The system of claim 6 wherein the signal processing utilizes interferometry.

Claim 8. The system of claim 7 wherein the utilized interferometry is resonance interferometry.

Claim 9. The system of claim 8 wherein the utilized resonance interferometry is stochastic resonance interferometry or quantum resonance interferometry.

Claim 10. A system for determining the presence of specific constituents within an output pattern generated from a detected image of a biological sample applied to an array wherein the output pattern comprises signals associated with noise, and signals associated with the biological sample which have intensities both greater and less than intensities of signals associated with noise, comprising:

tessellation means for tessellating the output pattern;

signal processing means for amplifying signals associated with the biological sample within the tessellated output pattern, having an intensity lower than the intensity of signals associated with noise, to an intensity greater than the intensity of the signals associated with noise to generate a modified output pattern;

first determination means for determining which signals within the modified output pattern correlate with specific constituents within the biological sample; and

second determination means for determining specific constituents within the biological sample based on the signals within the modified output pattern correlating to specific constituents within the biological sample.